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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,629	02/18/2004	Izumi Urano	249034US6	9094
22850 7590 07/18/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER DO, ANH HONG	
			ART UNIT	PAPER NUMBER
			2624	
			NOTIFICATION DATE	DELIVERY MODE
			07/18/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/779,629

Applicant(s)

URANO ET AL.

Examiner

ANH H. DO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/18/04 & 7/13/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 5A, 5B, 5C, 5D, 6A, 6B, 6C, 6D, 7A, 7B, 8A, 8B, 9A, 9B, 10A, 10B, 11A, 11B, 12A, and 12B. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

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examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 4 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 4 is drawn to a computer implemented process that merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application in technological arts.

In order for a claimed invention to accomplish a practical application, it must produce a "useful, concrete and tangible result" *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). A practical application can be achieved through recitation of "a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan", or "limited to a practical application within the technological arts" (MPEP 2106 IVB2(b)). Currently, claim 4 meets neither of these criteria. In order to for the claimed process to produce a "useful, concrete and tangible" result, recitation of one or more of the following elements is suggested:

- * The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2(b)(i)).

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* A recitation of a physical transformation outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106 IVB2(b)(i)).

* A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2(b)(ii)).

5. Claim 5 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 5 is drawn to functional descriptive material embodied on a computer readable medium (i.e., "data structures and computer programs which impart functionally when employed as a computer component" at MPEP 2106.IV.B(1)). However, the program/algorithm itself merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application in the technological arts. MPEP.IV.B2(a) (statutory Product Claims) states:

"A claim limited to a... manufacture, which has a practical application in the technological arts, is statutory."

In order for a claimed invention to accomplish a practical application, it must produce a "useful, concrete and tangible result", *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). Currently, the claim does not recite a practical application. In order for the claimed product to produce a 'useful, concrete and tangible' result, recitation of one or more of the following element is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106.IV.B2(b)(i)).

- A physical transformations outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106.IV.B2(b)(i)).
- A direct recitation of a practical application in the technological arts (MPEP 2106.IV.B2(b)(ii)).

6. Claim 6 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 6 defines a computer based structural organization embodying functional descriptive material. However, the claim does not define a computer readable medium or memory and is thus non-statutory for that reason (i.e., “when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized” – Guidelines Annex IV). That is, the scope of the presently claimed a computer based structural organization can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The Examiner suggests amending the claim to embody the program on “computer-readable medium” or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Furthermore, the program/algorithm recited in the claim itself merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to

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a practical application in the technological arts. MPEP.IV.B2(a) (statutory Product Claims) states:

“A claim limited to a... manufacture, which has a practical application in the technological arts, is statutory.”

In order for a claimed invention to accomplish a practical application, it must produce a “useful, concrete and tangible result”, *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). Currently, the claim does not recite a practical application. In order for the claimed product to produce a ‘useful, concrete and tangible’ result, recitation of one or more of the following element is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106.IV.B2(b)(i)).
- A physical transformations outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106.IV.B2(b)(i)).
- A direct recitation of a practical application in the technological arts (MPEP 2106.IV.B2(b)(ii)).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 4, 5, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kimura et al. (U.S. Patent No. 6,798,542).

Regarding claim 1, Kimura discloses:

- edge extracting means for extracting edges of an input image (col. 5, lines 66 - 67) composed of pixels in matrix (as shown in Fig. 31A);
- period detecting means for detecting the periods of the edges (col. 15, line 56 – col. 16, line 3: detecting positions of the edges using unit 110 in Fig. 1);
- dividing means for dividing the input image into blocks according to the periods of the edges (col. 15, lines 45-48);
- pixel-value converting means for converting the pixel values of all pixels in each of the blocks to a predetermined pixel value (col. 10, lines 3-5: converting pixel values using unit 112 in Fig. 1).

Regarding claim 4, since this is a method claim corresponding to the apparatus claim 1, the discussion of claim 1 is applied hereto.

Regarding claims 5 and 6, Kimura discloses a computer for forming an image (col. 12, lines 9-10) and for performing the functions of the components recited in claim 1.

Allowable Subject Matter

9. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2, the prior art, taken either singly or in combination, does not teach:

- frequency detecting means... the matrix, wherein... the pixels.

Regarding claim 3, the prior art, taken either singly or in combination, does not teach:

- discrete Fourier transforming means... power spectra; peak detecting means... power spectra, wherein... the peaks.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EILEEN LILLIS can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 8, 2007

A handwritten signature in black ink, appearing to read 'anhongdo', with a stylized, flowing script.

ANH HONG DO
PRIMARY EXAMINER